

6. Holcombe: Assessment and analysis of selected finds

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Medieval pottery analysis

Introduction

The medieval assemblage from the Cinder Hill Engine House, Holcombe Moor consisted of 107 sherds of pottery weighing 445g, representing a maximum of 103 vessels. The data are summarised in **Appendix X**.

Results

- 6.2 The assemblage consisted of heavily abraded, medieval gritty wares, the majority bright orange to orange-buff in colour, with a small number which were significantly harder and less severely abraded. All of the sherds contained abundant sub-round to sub-angular quartz grit up to 1mm in size (measured along the longest visible axis) and in some cases larger. Other inclusions varied in density between sherds and included hard red iron-rich grit (? ironstone) and occasional soft red and white rock fragments. A distinctive feature of many of the sherds was an apparent difference between the internal and external surfaces. The former were often softer and a bright orange colour while the latter were harder and buff in colour (e.g. B15.205/100.043 Bag 47, B15.200/100.070 Bag 101, rim; B15.200/100.070 Bag 69, two joining sherds). A small number of sherds were buff in colour, often with a grey core and seemed to be harder than the orange sherds and the inclusions maybe slightly smaller in size. There was little obvious distinction in the nature of the inclusions and it is probable that all types were of local origin, with the variations being the result of differences in the clays or in the firing atmosphere.

The overall appearance of the sherds is of a local variant of the wider Gritty ware industry as represented by the Buff Gritty and Yorkshire Gritty wares of the area to the east of the Pennines, although in what is most probably a local fabric.

In the absence of known parallels and of an established regional type series for the western Pennines, the names *Holcombe Orange Gritty ware* (HOGw) and *Holcombe Buff Gritty ware* (HBGw) have been coined, with the latter reserved for the few sherds which are buff throughout, sometimes with a pale grey core. The term *Gritty ware* was reserved for vessels which were significantly harder than the majority and which had a distinctively dense body and which appeared to have been fired to a higher temperature.

Vessel forms, as indicated by the rims, seem to be limited to round or pear-shaped jars with rilled shoulders. The rounded, clubbed rims often had a dished internal surface and pointed lip, although how far this profile implies that they are lid-seated is unclear. Other rims

were more rounded but had a slight ridge on the inner surface of the rim.

In the absence of any independent dating of the pottery, it is suggested that the date range lies between the mid/late 12th and late 13th to early 14th century, consistent with the dating of Gritty wares in Yorkshire. This suggestion may have to be revised if other examples of these types are recovered from dated contexts elsewhere in the region.

Discussion

- 6.3 In terms of the type of vessels represented, the medieval material is of a domestic character and consists primarily of jar or cooking pot fragments in typical gritty fabrics. Such wares are, however, normally accompanied by finer-textured wares with sandy fabrics (Buff or Buff-White Sandy wares). Only one small sherd of this type was identified (context 100.070 Bag 26), which is unusual and may indicate that activity on the site was not of a standard domestic type. Further information regarding the nature of the medieval phases of the site may cast further light on this suggestion.

Pearlware pottery analysis

Condition

The three Pearlware vessels - a transfer printed plate (B16.190 105.144 Bag 191), a small cup-sized bowl (B16.195 105.140 Bag 141) and a dish (B16.195 100.093 Bag 122) - together weighed 450g. The latter two were hand-painted. These vessels were in much better condition than the medieval wares and had clearly not been subjected to the same range of post-depositional impacts as had the earlier wares.

Sherds from each have been re-adhered since excavation. The transfer-printed plate is complete apart from a chip at the rim. The other two vessels are less complete, though a profile of each is present.

Results

- 6.2 The transfer printed design on the plate (B16.190/105.144 Bag 191) was a semi-abstract floral / leaf design, featuring a lotus-style plant which has been impossible to track down and identify according to the pattern name. This is not to say that the pattern is entirely unknown, but reflects the fact that such patterns proliferated in the later early modern period and their identification depends upon access to a comprehensive reference library. A search of sources available to the author at the time of writing failed to reveal any specific parallels, with the result that although the broad date range is not in doubt, the pattern cannot be named or attributed to any specific manufacturer.

The dish (B16.195/100.093 Bag 122) was decorated with hand-painted blue bands on the internal surface with a stylised pineapple in the centre. It also bore an impressed maker's mark on the underside in the form of an open hand, but unfortunately this was not accompanied by a name and the hand motif is absent from

Godden's catalogue of maker's marks (1991). A search of other sources also failed to reveal the identity of the design with the result that it remains unidentified.

The cup, or more probably, bowl, as there is no sign of a handle (B16.195/105.140 Bag 141), was decorated with underglaze hand-painted designs based on a simple floral motif with yellow flowers, green leaves and black stems. There was small floral motif in the centre of the base internally and a similar design forming a looped frieze externally. As with the two pearlware vessels described above, no specific parallel could be found for the design and it remains unidentified. The date range cited in the data tables, while broader than might be desired, is generally accurate, but further research might allow it to be refined.

Discussion

- 6.x The early modern material is of good quality and would have been considered as fashionable and desirable at and after the time it was made and sold. Such vessels would normally be expected on an urban site or on a rural site of some significance, such as the residence of a well-to-do yeoman farmer or middle class professional such as a doctor, priest, lawyer or substantial tradesman. That it was found on a site with industrial associations might suggest that it had been replaced by later, more fashionable wares (transfer printed Whiteware, Bone China) in its original context and passed down the social scale for use in a more utilitarian context. This would suggest that its deposition took place some considerable time after the date of manufacture, probably in the early to mid-19th century.

Archiving and curation

Once the project is complete, the medieval and Pearlwares assemblage should be deposited in its entirety in the appropriate local museum or finds depository where it will be available for further research in the future. This is of particular importance as the medieval pottery is of a type that has not been previously documented and as such is of considerable interest in the wider regional context. The Pearlwares clearly represent a significant aspect of activity on the site but remain unidentified. It is highly probable that further research will rectify this situation and that the identification will contribute to a better understanding of the site and its connections in the early modern period.

Animal bone analysis

- 6.x **Results**

Faunal remains were recovered from, mostly, make-up deposits associated with a 19th century water mill and cottages. The few bones found are well preserved, with the exception of context [165]. All fragments found are listed in **Table X**. The categories cattle and sheep-size indicate fragments of ribs and vertebrae. In keeping with the recent origin of the finds, saw mark butchery was observed on finds from contexts [55, 72, 131, 135, 140]. Rodent, most probably rat, nibble marks were observed on bones from contexts [55 and 72].

The cattle-size rib and vertebrae fragments indicate beef joints on the bone, such as rib roast and flank. Part of a leg of mutton joint was found in context [72]. A split sheep-size lumbar vertebra from context [72] indicates that the carcass was split into sides and the saddle cut into chops. A sawn, sheep-size proximal rib from context [131] indicates a mutton chop, while a sawn distal rib from [140] indicates a belly cut.

Access to marine resources is indicated by the cockle shells from context [72], mussel shell from context [83] and whelk shell from context [86].

The finds from context [165] comprise a burnt fragment, probably sheep size rib, and a weathered fragment, possibly of cattle-size long bone.

Two fragments of bone artefacts were found. Part of a bone handle plate with fine cross-hatched decorated on the exterior was found in B14.203/100.013, (see X.X below). Though rivet holes with iron staining are apparent, this is a very fine and delicate object. The interior of the bone shows cancellous tissue, indicating that it has been made from a flat bone, such as a large rib, scapula or pelvis, and not from a robust section of limb bone. A small fragment from context [21] has bands of thick and thin engraved lines on the exterior. The fragment is distorted as it has been burnt. The interior again shows cancellous tissue, indicating that it has been made from a flat bone.

Context	55	72	83	86	131	135	140	165
Cattle size	3	3				1		
Sheep		1						
Sheep size		1			1		1	
Indeterminate								2
Cockle		2						
Mussel			1					
Whelk				1				

Table X: Animal bones and shells by number and type and context.

Discussion

- 6.x The bones are evidence of domestic food refuse. The small size of the assemblage suggests either that the inhabitants rarely purchased cuts of meat on the bone or, perhaps more likely, that rubbish was removed and/or disposed of elsewhere on site. There seems to have been limited access to marine resources. Dating is confirmed by the fact that the saw as a butchery tool was an innovation of the early 19th century.

Metal objects analysis

6.x Methodology

Iron objects identified as non-nail among those selected for reporting were X-radiographed to assist with identification and

conservation. Nineteen objects from among these were chosen for investigative conservation after XR (X-radiography).

Obscuring soil and surface corrosion products were selectively removed using air abrasion, guided by the X-radiographs. The revealed corroded iron surfaces were consolidated using 6% Paraloid B72 (an ethyl methacrylate co-polymer) in acetone.

Few groups of similar objects in such a small assemblage. The catalogue below has grouped together similar objects where possible.

6.x **Results** **Cutlery**

A fragmentary iron table knife with bone handle was recovered from demolition rubble fill [069] and a probable knife blade fragment came from rubble context [013]. A probable bone fork handle, with just a fragment of the bolster surviving, came from Central bay fill [079]. An iron spoon handle with white metal plating was found in context [135], under the W bay floor. None of the objects are decorated. The nature of their finds contexts suggest the objects may already have been damaged when discarded or lost. They are utilitarian rather than objects of high status.

Catalogue

[013]: XR7276. Probable iron knife blade fragment, wedge-shaped in section, 27mm long x 18mm wide max x 2.4mm thick max. The back of the blade is square to rounded. Both short ends broken, back intact, blade edge rather fragmentary. Completely corroded, no metal remaining.

[069]: XR7276. Knife handle with bone scales plus iron tang, bolster and part of blade. The object is 129mm long overall. The bone handle, 82mm long and oval in section 20mm x 15mm, is intact though damaged and stained by iron corrosion products. It is undecorated and lacks a polished finish. The remains of three small iron rivets hold the handle tang plus scales together. The tang does not appear to run (or perhaps survive) through the full length of the handle. The blade has an integral bolster and choil. The surviving base of the blade is very highly corroded but intact. It is wedge-shaped in section, 20mm wide max x 2.7mm thick. The shape and style of the handle and the shape of the surviving blade fragment suggests a date of mid-late 18th century.



[069]

[079]: XR7276. Probable fork handle with bone scales plus part of probable iron bolster. The object is 84mm long overall. The bone handle, 72.5mm long and oval in section 18mm x 16.5mm, is intact though stained by iron corrosion products. It is undecorated but has a smooth, polished finish. The remains of three small iron rivets hold the handle tang plus scales together. The tang runs the whole length of the handle. The surviving iron at the top of the handle is completely corroded, but may be part of a small, integral bolster some 10mm wide x 8mm thick, which narrows abruptly at the break to 4mm diam. This shaping suggests the handle belongs to a fork of mid-late 18th century type, which had a length of often circular-sectioned metal below the tines.



[079]

[135]: XR7271. Iron spoon handle, bowl lost. The object is 122mm long x 21mm tapering to 6mm wide x 1-3.5mm thick. The iron is highly corroded but still bears substantial traces of white metal plating. There is no decoration or maker's mark. The spoon handle is of Old English type, its end bending slightly downwards. This design dates to c1760+.



[135]

Button analysis

6.x

Methodology

All buttons were examined visually and under X10 magnification. For most, some surface soil or corrosion was removed with a water/detergent mix, locally applied, or using handtools under X10 magnification, in order to define surface detail or button backs. Eighteen buttons were selected for further investigative conservation and some of these were also X-radiographed. Five

buttons were analysed using surface EDXRF (energy dispersive X-ray fluorescence) analysis, to characterise alloys or surface coatings.

6.x Results

A total of 27 buttons came from 19 different contexts and unstratified, 6 contexts producing more than one (Table X). One button was made from mother of pearl, two from glass and the remainder from copper alloys. Nine have traces of surface plating and 6 have some form of decoration or lettering. The glass and mother of pearl buttons are in good condition, the metal buttons are variable, with some being undamaged and stable, e.g. contexts [53], [72] and [81], and others with significant localised corrosion, e.g. [19] and [148]. The small button from ash layer [131] shows evidence of burning and those from contexts [14] and [197] are highly corroded.

The highly corroded button from context [14] has separated into two layers and also has significant quantities of iron corrosion present. This button had an iron core which was covered by copper alloy sheet. Microscopic examination shows very small traces of possible gilding on the button underside and also mineralised material adhering to part of the edge. The disorganised, fibrous structure of this material suggests that it is leather, probably deriving from the garment or object to which the button was attached.

Context	Context type	No	Material	Dec	Plating	Leather	XR F
u/s 2013		2	Metal		1		
014	Stone loam	1	Metal		1	1	
016	Wall fill	1	Metal	1			
019	Edging stones	1	Metal				
020	Cobble stones	1	Metal	1			
040	S of drain [25]	1	Metal				
053	Cinder layer	1	Metal				
072	Rubble under C bay flags	1	Metal		1		Y
081	E bay redeposited natural	1	Metal		Y		
090	Black loam & mortar	1	Metal	1			Y
106	W bay W room floor	2	Metal	1	1		
122	Fill W bay sunken feature	1	Mother of pearl				
122	Fill W bay sunken feature	1	Metal		Y		Y
122	Fill W bay sunken feature	2	Metal	1	2		
131	Cinder & ash layer	1	Metal				
135	W bay	1	Metal				
141	Stone feature	2	Metal		Y		Y

	inside W bay						
144	W edge topsoil	1	Glass				
148	Fill under W bay soakaway	2	Metal				Y
167	Clay fill	1	Metal	1			
184	Clay & ash layer	1	Glass				
197	Stone and loam layer	1	Metal				
Total		27					

Table X: Button numbers by context and material

Catalogue

- 6.x [u/s]: Plain, flat probably copper alloy button, 18mm diam x 1.4mm thick, with traces of white metal surface plating. The back has a cone shank with intact, though flattened loop. 18th/E19thC.
- [u/s]: Flat copper alloy button, 15mm diam x 1.7mm thick. Front is plain and flat. Back shows traces of gilding, has a soldered, broken shank and lettering around the edge (STANDARD RANGE GILT). 19th C. Probably of military origin.
- [014]: Highly corroded iron/copper alloy button, 22mm diam x 4mm thick. Corrosion has caused it to split into two parts. Front and back plain, with bevelled edge. Shank lost. Fragments of mineralised leather adhere to part of edge and back.
- [16]: Plain, flat copper alloy button, 16mm diam x 1.2mm thick. Front plain. Back has soldered shank with distorted loop. Tiny star stamped into back. 19th C.
- [19]: Plain, slightly domed copper alloy button, 18.5mm diam x 1.6mm thick. Shank lost.
- [20]: Small copper alloy button, 11.5 diam x 2mm thick. Back has soldered shank with distorted loop and lettering around the edge. This is mostly indecipherable, but the word 'BEST' is visible. Front has slightly raised edge and stamped, stylised, multi-petalled floral design. 19th C.
- [040]: Plain, flat copper alloy button, 21.7mm diam x 2mm thick. Back has cone shank, loop lost. 18th/E19thC.
- [053]: Plain, slightly domed copper alloy button, 14.6mm diam x 1.3 mm thick. Back has cone shank with intact loop. 18th/E19thC.
- [072]: Plain, white metal button, 25mm diam x 1mm thick. Back has cone shank, with some copper corrosion surrounding it. Loop lost. 18th/E19thC. Surface XRF results suggest the button core is made of brass (Zn/Cu alloy), possibly leaded. This was surface coated with tin or a lead/tin alloy
- [081]: Plain, flat button, 16mm diam x 1.3mm thick, likely copper alloy, with traces of white metal surface plating. The back has a cone shank with intact loop. 18th/E19thC.
- [090]: Flat copper alloy button 32mm diam x 1mm thick. Back has integral intact loop and traces of white metal plating. Front has indecipherable lettering around the edge and a design (now lost to corrosion) inside a rilled circle. Late 18thC. Surface XRF analysis

suggests the button was made of leaded brass (Zn/Cu alloy), surface coated with tin.

[106]: Plain button, probably copper alloy with all-over white metal plating, 15mm diam x 1mm thick. Front plain, back has cone shank, loop lost. Iron corrosion on the back suggests the loop was likely iron. 18th/E19thC.

[106]: Slightly domed copper alloy button 19.5mm diam x 1.2mm thick. The back shows a moulding seam and has a design of two sprigs of ?laurel around the cast-in shank and loop. The front has a cast-in design of raised circles, each with 4 tiny dots arranged around them. 18thC.

[122]: Plain, white mother of pearl button, flat, 16mm diam x 4mm thick. Edges worn, surfaces well-preserved and shiny. The back has the broken remains of a copper alloy shank.

[122]: Plain, slightly domed metal button, 14mm diam x 2.2mm thick max, likely copper alloy with all-over white metal plating. Back is flat with a broken loop. Surface XRF results suggest the button was made of leaded brass (Zn/Cu alloy), surface plated all over with tin.

[122]: Partly corroded, plain flat button, likely copper alloy with white metal plating, 28.5mm diam x 1mm thick. Front plain, back has cone shank and intact, robust loop. 18th/E19thC.

[122]: Small, slightly domed copper alloy button, 14mm diam x 1mm thick. Front plain, back has integral loop, shows traces of gilding and has the words 'TREBLE GILT' and two stars. Military. 19thC.

[131]: Highly corroded, slightly domed copper alloy button 14mm diam x 6mm thick. Shank lost. Corrosion has caused the button to almost split into two. Distortion from burning.

[135]: Plain flat copper alloy button, 14.5mm diam x 1.5mm thick. Back has cone shank, loop lost. 18th/E19thC.

[141]: Small, slightly domed copper alloy button, 12.5mm diam x 1.5mm thick. Front plain. Back has an intact loop and a slight lip around the outside edge. Stamped inside the lip is the word 'GILT' with arrows. Traces of gilding are visible around the lip. Surface XRF results suggest the button was made from brass (Zn/Cu alloy), with traces of gold also detected.

[141]: Large, flat, copper alloy button 22.5mm diam x 0.9mm thick. The back is plain with a (detached) but complete loop. The front is worn with traces of a punched ?dot design around the edge and gilding. Surface XRF results suggest the button was made from brass (Zn/Cu alloy), but gold was not detected.

[144]: Part of an opaque, white glass button, 11mm diam x 3.4mm thick max. Biconical. The button has four very small holes within a recessed central circular area.

[148]: Small, flat plain button, 15.5mm diam x 0.9mm thick, likely copper alloy with all-over white metal plating. The back has a cone shank, the loop lost. Surface XRF results suggest the button was made from brass (Zn/Cu alloy), plated with tin.

[148]: Large, plain, flat button, 29.6mm diam x 1mm thick, likely copper alloy with all-over white metal plating. The back has a cone shank with intact loop. Surface XRF results suggest the button was made from brass (Zn/Cu alloy), plated with tin.



[148]

[167]: Domed top from a soldered two-part, copper alloy sheet button, 12mm diam x 5mm deep x 0.9mm thick. Distorted. Top has fine, concentric ring decoration around a central raised dot motif. 19thC.

[184]: Moulded, translucent emerald green glass button, 12.4mm diam x 4mm thick max. Domed with a central flattened top. The front has two concentric rings of raised dots around an engine-turned, 8-petalled flower design on the slightly raised flat central area.



[184]

[197]: Highly corroded copper alloy button 14mm diam x 2mm thick max, possibly originally slightly domed. The flat back had a loop, now lost. All surface corrosion products lost or removed.

Discussion

6.x

Lead alloy objects

6.x

Methodology

All objects were conserved to improve their stability and to reveal surface detail and form. Mechanical removal of obscuring soil and corrosion products was carried out under X10 magnification. The objects were consolidated using 6% Paraloid B72 (an ethyl methacrylate co-polymer) in acetone.

6.x

Results

Seven fragmentary lead alloy objects came from four contexts and unstratified. These included pieces of 6 spoons. The non-spoon object, from West bay context [98], is a possibly complete ?fitting, though its function – given that it was manufactured from lead alloy – is uncertain, as is dating.

Spoons

The spoons comprise pieces from four complete or fragmentary spoon bowls and pieces from three complete or fragmentary handles. One bowl (unfortunately u/s) is complete, another, from [156], a deposit under the West bay room floor, is almost complete, and a third, from [197] a loamy stone layer, is incomplete, but the bowl shape can be discerned. The fourth, also u/s, is just a sliver.

One fragmentary handle was found u/s, a second, better-preserved but fragmentary example, comes from [086], an ash layer under the Central bay flagstones, and the third is attached to the fragmentary bowl from [197].

Burial is usually highly detrimental to the alloy, so the appearance of the spoons may have been rather more elegant when in use, as pewter was intended to be polished and to have a silvery appearance. All examples here seem to have been quite roughly (possibly locally?) finished and none has a touchmark or owner's initials. The shapes of the complete/fragmentary bowls from [156 & 197] suggest a later 18th century date, while the more pointed unstratified example is more likely to date to the 19th century.

Catalogue

6.x u/s: Spoon bowl, complete, no handle remains. The bowl is a rather pointed oval in shape, 42mm long x 29mm wide max x 1-1.5mm thick. There is a suggestion of a rudimentary, stubby 'rat's tail' join on the back. 19thC.

u/s: Sliver of probable spoon bowl, slightly dished, 44mm long x 13.5mm wide x 3.5mm thick. No edges are original. Possible cut mark on the back.

u/s: Part of a spoon handle, slightly bent, 61mm long, sub-rectangular in section 8.5 x 4.5mm. Both short ends are broken.

[086]: Part of a spoon handle with 'shoulder' (cf [197]) 58mm long, rectangular in section tapering 10-7mm wide x 4mm thick. The wider short end is broken, the other may have been cut.

[098]: Circular-sectioned lead alloy object, possibly complete. It is c62mm long, the lead 4mm diam. One end is rounded and possibly original, the other has been flattened to 7mm wide with a rounded top and a has a 3mm diam perforation. The metal is twisted below the flattened area.

[156]: Almost complete spoon bowl, handle lost. Bowl is a slightly pointed oval shape 74mm long x 38mm wide x 3mm thick. There is a reinforcing drop on the back where it joined the handle.

[197]: Fragmentary spoon bowl plus part of handle. The part bowl survives in three fragments, apparently not quite joining. The bowl is c57+mm long x 44mm wide max x 2.5mm thick. The handle is 57mm long from where it joins the bowl, sub-rectangular in section, 7 x 5mm, and has a 'shoulder' around 15mm below the bowl join (cf [086]). The handle back has a central raised decorative line which extends onto the back of the spoon bowl. Overall length 115mm.

Discussion

6.x

Lead window comes analysis

6.x Methodology

All fragments were examined. Lengths of single pieces and samples of multiple pieces were measured, as were widths, where intact. Selected surfaces and web interiors were cleaned using non-metal tools and brushes to enable examination of surface features and to reveal the number of milling teeth, which were counted using X10 magnification. Only the fragments from [119] which included the *in situ* glass were conserved. The pieces are mainly moderately corroded and stable, but some are highly corroded and fragile.

6.x Results

Some 69 fragments of lead window from 12 contexts were examined (Table X).

Context	Context type	Fragments	Notes
009	Rubble fill	5	1 join
016	Wall fill	5	1 join
053	Cinder layer	3	Inc right angled piece with join
055	Rubble and mortar	12	XRF. 2 joins, glass frag
079	Cent bay clay & mortar fill	1	
119	Topsoil over E bay N wall	9	
121	W bay sunken feature	1	
122	W bay sunken feature fill	1	XRF
144	W edge of topsoil	2	
170	Gravel & clay under cent bay	1	
184	Clay & ash layer	2	1 part join
185	Stone & clay layer	27	XRF. Inc 4 joins, 'complete' small pane with glass frag's
Total		69	

Table X: Lead came fragment numbers by context

Catalogue

6.x [009]: 5 fragments, flattened, 94-165mm long, 11 or 14mm wide. One piece with join. Milled. Wider pieces 12 teeth per 20mm, narrower pieces 18 teeth per 20mm.

[016]: 5 fragments, flattened, 68-106mm long, 11, 12, 14mm wide. All milled. One piece with join. Wider pieces milled at 15 teeth per 20mm, narrower pieces 8 or 20 teeth per 20mm.

[053]: 3 fragments, flattened, 26-58mm long, 11-12mm wide. Milled at 17 teeth per 20mm, where examined.

[055]: 12 fragments, flattened, 33-202mm long. The longest piece is a joined right-angled corner with a fragment of unweathered glass 1.5mm thick *in situ*. One fragment is 10mm wide, the others are

14mm wide. Narrow piece milled at 16 teeth per 20mm, wider pieces at 15 teeth per 20mm, where examined.

[079]: 1 fragment, bent and highly corroded, 52mm long, width not measurable, milled at 10 teeth per 20mm.

[119]: 9 fragments, flattened and bent, 26-129mm long, 8 with a measurable intact width of 11mm. Milled at 11 or 17 teeth per 20mm where examined. Includes a group of 5 associated pieces, one right angled fragment with a shard of slightly weathered green/clear glass 1.4mm thick *in situ*. Clumsy join at the corner.

[121]: 1 fragment, flattened and very damaged, 121mm long, 12mm wide. Milled at 20 teeth per 20mm.

[122]: 1 fragment, flattened, 124mm long x 12mm wide. Milled at 15 teeth per 20mm, irregularly spaced.

[144]: 2 fragments, twisted and flattened, 31 & 42mm long, width not measurable. Milled, but teeth could not be counted.

[170]: 1 fragment, flattened and very damaged, 58mm long x 10mm+ wide. Milled at 12 teeth per 20mm.

[184]: 2 fragments, flattened, bent and damaged, 36 & 72mm long, includes part of a join, incomplete widths 10mm+. Milled at 20 teeth per 20mm.

[185]: 27 fragments in relatively poor condition, several pieces contaminated with iron corrosion products. Pieces up to 92mm long max. Where intact, widths are 12-13mm. Includes 4 fragments with untidy joins up to 22mm wide. The assemblage also includes a group of 4 pieces, thought by the excavators to be associated into a small (now non-joining) square frame c95 x 95mm (outside measurement of lead), plus part of one arm from a further frame. Two small fragments of unweathered, green/clear glass, 2mm thick, survive in a corner join and inside the web. Came width 12-13mm. All the intact fragments from this context have a similar appearance and are probably associated. All are milled, where examined, with teeth at 18 per 20mm.

Discussion

6.x

Coins analysis

6.x

Results

Seven copper alloy coins were recovered. All were conserved prior to specialist examination, using hand tools under X10 magnification to remove obscuring soil and corrosion products to facilitate identification and dating. The surfaces were then stabilised/consolidated using 6% Paraloid B72 (an ethyl methacrylate co-polymer) in acetone.

Catalogue

6.x

George III
Halfpenny; copper
Tower Mint, London
First issue, 1773
Heavy wear

B17.195; Bag 218

George III
Penny; copper
Soho Mint, Birmingham
Second issue, 1797
Corroded
B14.200; Bag 22

George III
Halfpenny; copper
Soho Mint, Birmingham
Third issue, 1799
Moderate wear
Bottoms 2013; Bag 6

George III
Halfpenny; copper
Soho Mint, Birmingham
Fourth issue, 1806
Moderate wear, corroded
B15.200; Bag 66

George III
Halfpenny; copper
Soho Mint, Birmingham
Fourth issue, 1806
Moderate wear, corroded
B16.200; Bag 196

George III
Halfpenny; copper
Soho Mint, Birmingham
Fourth issue, 1806
Moderate wear, corroded
B17.200; Bag 217

George III
Halfpenny; copper
Soho Mint, Birmingham
Fourth issue, 1807
Moderate wear
B16.195; Bag 175

Discussion

- 6.x The assemblage is representative of the copper coinage in circulation in the early years of the 19th century. The single heavily worn Tower Mint halfpenny is a typical example of a coin struck using a hand-operated screw press. This technology was obsolete by the end of the 18th century, and in 1797, following the recommendations of the Liverpool Committee, the contract for the striking of Britain's copper coinage was handed to Mathew Boulton's and James Watt's privately-owned Soho Mint in Birmingham.

Boulton and Watt used cutting-edge steam-driven coining presses to produce coins that were technically far superior to anything that the Tower Mint could produce using its manual technology. The initial 'Cartwheel' issue of two-pennies and pennies struck in 1797 was later supplemented by halfpennies and farthings in 1799. A further series of pennies, halfpennies and farthings were struck to a lighter weight standard in Birmingham during 1806-07.

In total, some £679,311 worth of copper coins was struck at the Soho Mint.

Sources

- 6.x Godden, G, 1991 **Encyclopaedia of British pottery and porcelain marks**. Barrie and Jenkins

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